

9 wherein SOD' is a residue of superoxide dismutase; Q is a chemical
S crosslinking; B is a residue without a hydrogen atom of a hydroxyl group of
lysolecithin having the hydroxyl group at the 2-position of glycerol; m is an
average number of bonds of lysolecithin to one molecule of superoxide dismutase
which is a positive number of 1 or more;

5 (a) property: when water for injection is added to one which lyophilized the
10 drug composition, the one is dissolved with no insoluble foreign substances;

15 (b) stability: when a superoxide dismutase activity per unit weight
immediately after lyophilizing the drug composition is set as 100, relative values
of the activity after the lyophilized drug composition is stored at 8°C for 12
months, 25°C for 12 months or 40°C for 6 months are all 97% or more;

20 (c) peaks of analogues in gel filtration chromatography: when the
lyophilized drug composition is re-dissolved and submitted to gel filtration
chromatography and absorbance of the eluates is measured at 220 nm, no
substantial difference is observed between a peak shape of lecithin-modified
superoxide dismutase on a detection chart of the absorbance and a peak shape of
lecithin-modified superoxide dismutase before lyophilization; and

25 (d) peaks of analogues by reversed phase chromatography: when the
lyophilized composition was re-dissolved after it is stored at 8°C for 12 months,
25°C for 12 months or 40°C for 6 months and submitted to reversed phase
chromatography and absorbance of the eluates is measured at 220 nm and 270 nm,

each amount of detected analogues is not substantially different from that immediately after lyophilized.

2. (Amended) The drug composition according to claim 1 wherein all properties according to claim 1 remain after the lyophilized composition is stored at 8°C for 36 months, 25°C for 36 months or 40°C for 6 months.

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3. (Amended) The drug composition according to claim 1 or 2 wherein the analogues are substances generated by cleavage of a lecithin part of lecithin-modified superoxide dismutase.

4. (Amended) The drug composition according to claim 1 or 2 wherein a fatty acid content in the drug composition is 0.13-0.15 μ mol/mg protein.

5. (Amended) The drug composition according to claim 1 or 2 wherein the drug carrier comprises sucrose.

6. (Amended) The drug composition according to claim 1 or 2 wherein Q is -C(O)-(CH₂)_n-C(O)-, n being an integer of 2 or more.

7. (Amended) The drug composition according to claim 1 or 2 wherein SOD' is a residue of human superoxide dismutase.

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8. (Amended) The drug composition according to claim 1 or 2 wherein SOD' is a residue of a modified form of superoxide dismutase in which an amino acid in 111-position of an amino acid sequence of human superoxide dismutase is converted into S-(2-hydroxyethylthio) cysteine.

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9. (Amended) The drug composition according to claim 7 wherein the superoxide dismutase contains copper and zinc at the active center.

10. (Amended) The drug composition according to claim 6 wherein n is an integer of 2 to 10.

11. (Amended) The drug composition according to claim 1 or 2 wherein m is a positive number of 1 to 12.

12. (Amended) The drug composition according to claim 5 wherein the sucrose has been treated with activated charcoal.

13. (Amended) The drug composition according to claim 1 wherein the drug composition is lyophilized.

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14. (Amended) The drug composition according to claim 5 wherein a weight ratio of the lecithin-modified superoxide dismutase to sucrose is 0.4/100-60/100.

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15. (Amended) A method for treating a disease comprising administering the drug composition according to claim 1 or 2.

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16. (Amended) The method according to claim 15 wherein the disease is a motor neuron disease or ulcerative gastrointestinal injury.

17. (Amended) An agent having sucrose as an active ingredient for inhibiting a reduction of superoxide dismutase activity or for controlling appearances of peaks of analogues when analyzing the superoxide dismutase by column chromatography by making sucrose coexist with lecithin-modified superoxide dismutase represented by the following general formula (I):



wherein SOD' is a residue of the superoxide dismutase; Q is a chemical crosslinking; B is a residue without a hydrogen atom of a hydroxyl group of